

## CHAPTER 5: VENTURE CAPITAL PART 3

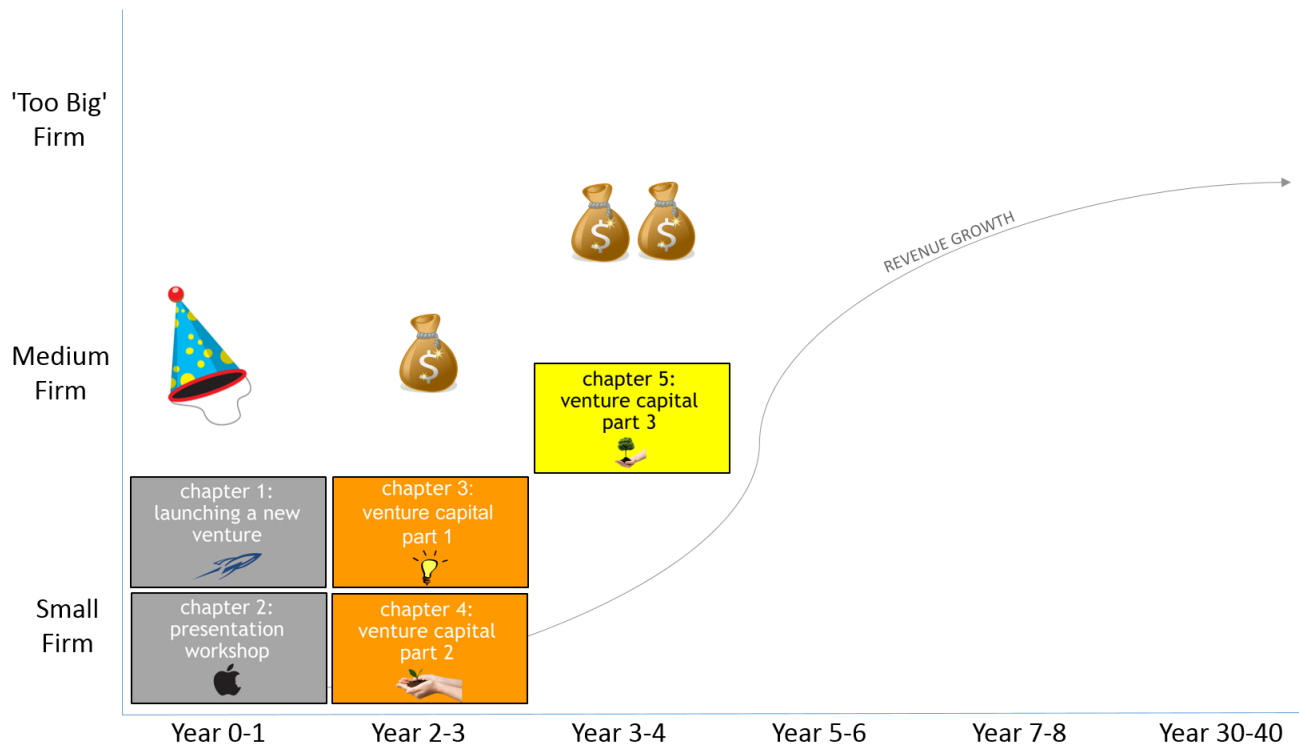
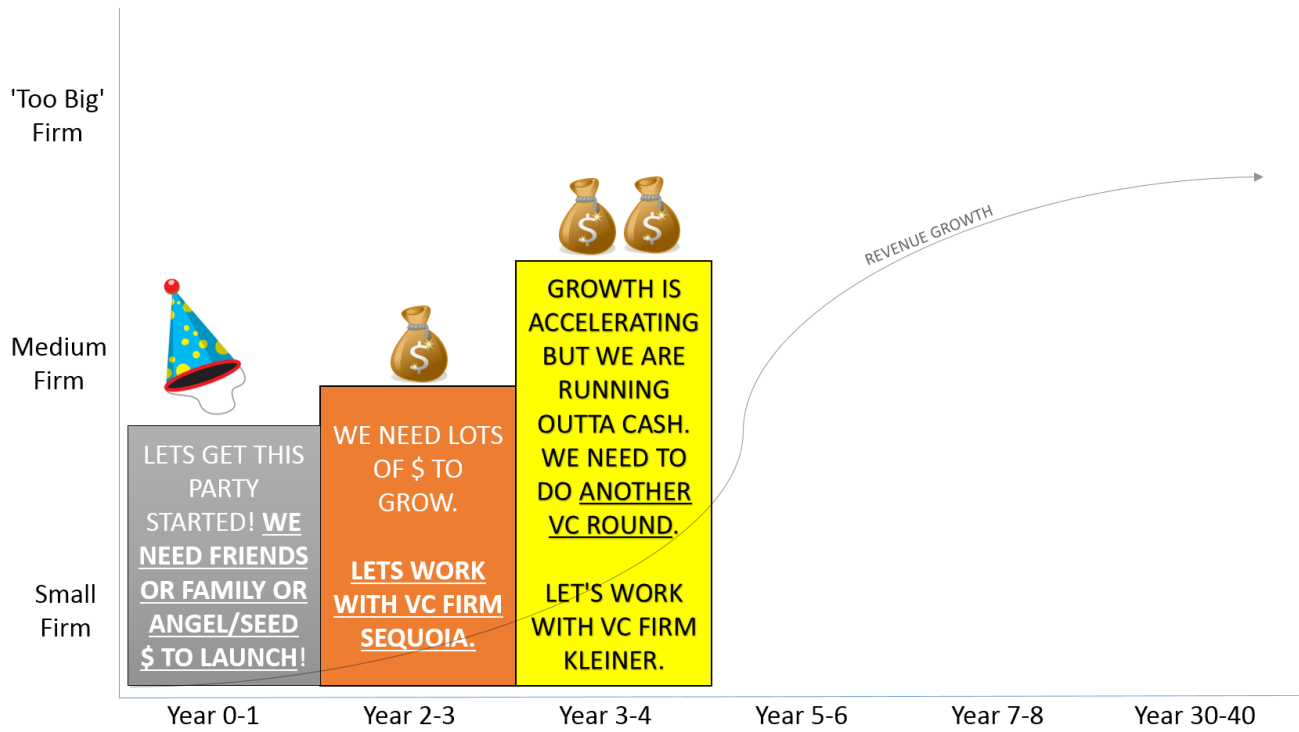
---

*“Success is stumbling from failure to failure  
with no loss of enthusiasm.”*

- Winston Churchill

chapter 5:  
venture capital  
part 3





If you get out of bed in the morning and tell yourself that you are going to work, then you are doing it wrong. You need to keep changing careers until you find your passion. Find out what is the reason you were put on this earth to accomplish professionally.

[www.tiny.cc/chris50](http://www.tiny.cc/chris50)

find your passion

the jockey is more important  
than the horse.

vc firms bet on the best athlete

I repeat the most important themes in the book often, like finding your passion or the importance of networking and, of course, the importance of investing in the right people, which is more important than investing in the right business model. VC firms love investing in the best athlete.

## HOW MANY SHARES DO I HAVE AND HOW MANY DOES THE VC HAVE?

I love baseball so this chapter we will use the best athlete analogy in venture by investing in the best athlete in baseball, who in my humble opinion is Giancarlo Stanton: [www.tiny.cc/chris51](http://www.tiny.cc/chris51)

In our hypothetical example, let's assume that Giancarlo started a cool payments company similar to Square and that he was also a founder of PayPal, which he took public and then sold to eBay. So yes

Giancarlo work experience:

**PayPal**



he designed a p.o.c.  
revolutionary payment terminal



he has had an exit (and not just out of Dodger stadium)!

Giancarlo designed a prototype or a P.O.C. (proof of concept) device that is a P.O.S. (ahem....a point of sale product that is). The P.O.C. was created using angel or seed money he raised from his a few high net worth investors.

he needs a \$1mn to build  
a non prototype version



Now Giancarlo needs to raise \$1mn in an A Round. Since he has had an exit and he is the best athlete, naturally the best venture capital firm, Sequoia will lead the Series A. Sequoia thinks they will make a 50% annual return for 5 years (yes they are that good).

**SEQUOIA CAPITAL**  
THE ENTREPRENEURS BEHIND THE ENTREPRENEURS®

wants to back him.  
they think they will  
make 50% return / year

As a side note, the best VC firms in the world have 1% of their portfolios in 'unicorns', which means companies that have a valuation above \$1bn. Sequoia has 5% of their portfolio in unicorns!

Sequoia did a deep due diligence dive on the company and they think that the P.O.S. company will make \$1mn in net income in 5 years.

when he launched his payment company last year he had \$10,000 in equity capital.

he decided to launch then with 2,000,000 shares.

he needs to negotiate with sequoia on how many shares they get.

Awesome! One of Giancarlo's competitors did an IPO at a price / earnings multiple of \$20mn divided by \$2mn in net income of a P/E or price to earnings multiple of 10 times! Hmm – ok this means that in 5 years when Giancarlo's company makes \$1mn in net income, then he and Sequoia agree that their P.O.S. firm will be worth the same 10x multiple or 10 x's \$1mn or \$10mn! Sweet!

what is his firm worth today?

he and sequoia agree that in 5 years his company will make \$1mn in net income.

Giancarlo decided to launch the firm with an arbitrary 2mn shares. Don't overthink this – it's always a random number and results in a random share price at launch ...usually well under \$1 per share. We will do a lot of math in the next few pages that will determine Giancarlo's ownership in the firm....but the original price per share and the number of shares is always given and not calculated.

a competitor of his just went public at a \$20mn valuation with \$2mn in net income

$$p/e = \$20mn / \$2mn = 10x$$

in 5 years we want to go public at a \$10mn (half the n.i.)

If the firm is worth \$10mn in 5 years then what is the firm worth today? Well Sequoia expects to make 50% annually on this investment. So if we know that the company is worth \$10mn in 5 years (which is 10x's \$1mn in net income), then what is \$10mn in 5 years worth today? We need to discount \$10mn over 5 years assuming that it will be worth 50% more annually each year for 5 years.

sequoia expects  
to make 50% per year

we need to calculate what his  
company in 5 years is worth today

$$\text{\$10mn} / (1 + 50\%)^5$$

$$= \text{\$1,316,872}$$

The math is calculated as follows (I will use another example first): if I tell you that you have an investment in a hypothetical company that will go up 50% in one year to be worth \$1mn, then today your investment is worth  $\text{\$1mn} / 1 + 50\% = 1,000,000 / 1.5 = \$666,667$ .

Ok now if I tell you that if you invested a certain amount of money for 2 years and each year you

would make a 50% return and that the value of your investment is \$1mn in 2 years, then how much would you need to invest today? In this example we need to discount the \$1mn over 2 years as follows:  $\text{\$1,000,000} / (1 + 50\%)^2 = \$444,444$ .

Ok so if Sequoia expects to make 50% per year for 5 years, then \$10,000,000 in 5 years is worth what today?  $\text{\$10,000,000} / (1.5)^5 = \$1,316,872$  today. Or \$1,316,872 that appreciates 50% annually for 5 years =  $\text{\$1,316,872} * 1.5^5 = \$10,000,000$ . Recall that Giancarlo wants to raise \$1mn from Sequoia so he can build his P.O.S.. So what percent of the firm does Sequoia own today? The firm is worth \$1,316,872 today, so Sequoia owns  $\text{\$1,000,000} / \text{\$1,316,872}$  or 76% of the company, leaving Giancarlo owning 24% of the firm. Per the next image, we already know that Giancarlo owns 2mn shares, so we can calculate how many shares Sequoia owns.

the value today is \$1,316,872

sequoia owns  $\text{\$1mn} / \text{\$1.32mn} = 76\%$

he owns 24% and has 2m shares

total shares =  $2\text{m} / .24 = 8.3\text{m}$  shares

sequoia owns 6.3m shares

Cool. So Sequoia owns 6.3mn shares, and \$1mn of these shares.

what is the share price?

$\$1\text{mn} / 6.3\text{mn shares}$

15.8c per share

how much does he own?

$2\text{mn shares} * 15.8\text{c per share}$   
= \$316k...called “pre \$ valuation”

= \$316k...called “pre \$ valuation”

total valuation  
=  $8.3\text{m shares} * 15.8\text{c}$   
= \$1.31m

the “post \$ valuation”  
= \$1.31m

in 5 years:

pre \$ valuation =  $24\% \times \$10\text{mn}$   
(his ownership) = \$2.4mn

post \$ valuation =  $100\% \times \$10\text{mn}$   
(his ownership + sequoia) = \$10mn

notice how we didn't do any income statement or cash flow projections to get to that valuation?

Don't worry, we will go over the easy way to create financial models and value companies in a future chapter using Microsoft Excel. The fun thing about finance and math is that there are multiple ways to value companies and model companies. More on that later. Finance isn't hard when you slowly build on basic math and layer more stuff on it over time....you'll see.

what sequoia just did was they led the “a round” or first round

oh no....



Oh no. We have an unfortunate set back with our company....don't worry as Giancarlo will be 100% ok:  
[www.tiny.cc/chris52](http://www.tiny.cc/chris52)

don't worry he is ok but this is  
a setback.



forecasts are often wrong....

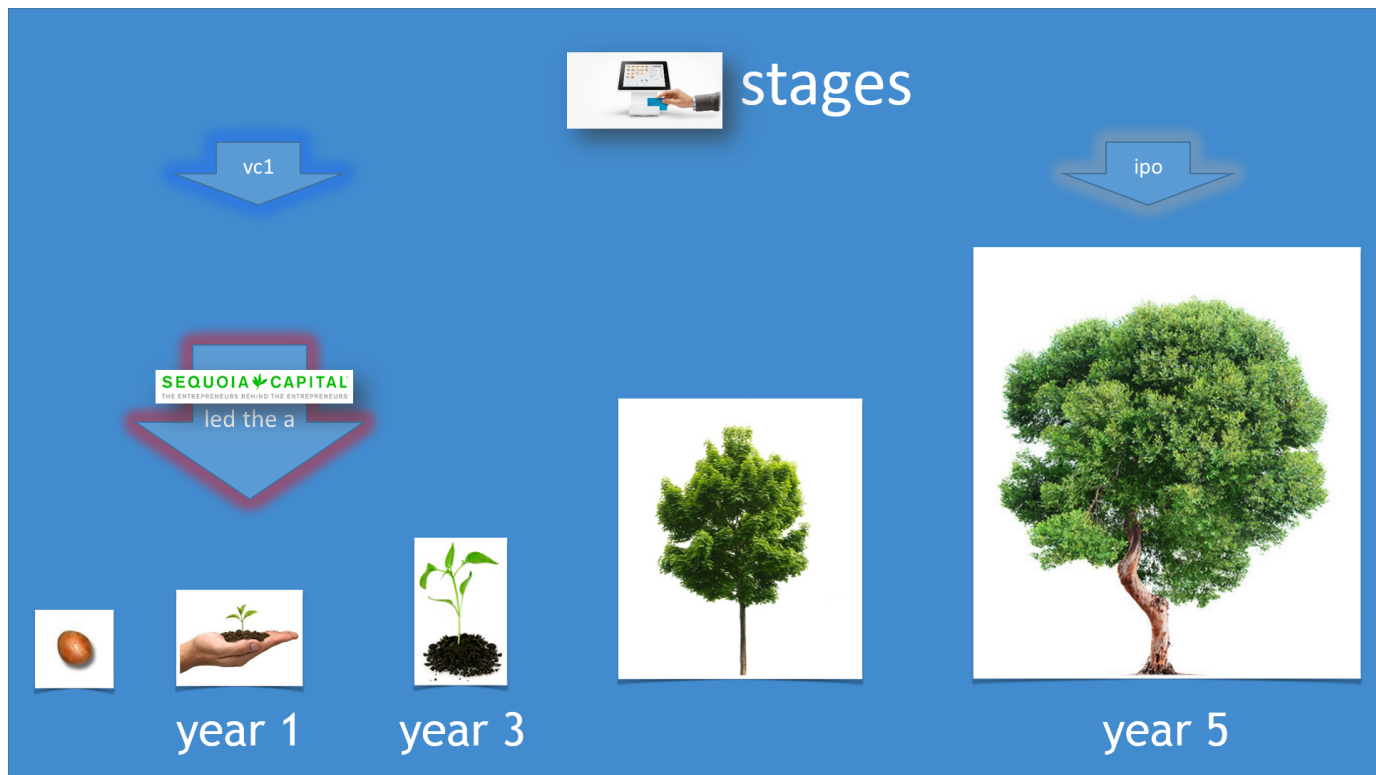
Companies tend to overestimate what they can accomplish in a year but they underestimate what they can accomplish in a decade. We always know in venture capital that the companies that we invest in are often dramatically different by the time we harvest the investment. This is why we invest in superb managers/athletes. Giancarlo is the best athlete for our hypothetical P.O.S. company.

we are in year 3 and we need  
more money!!!!



We went through a set back and unfortunately we need to raise more money way sooner than we expected. **Remember that cash is always 'king'!**





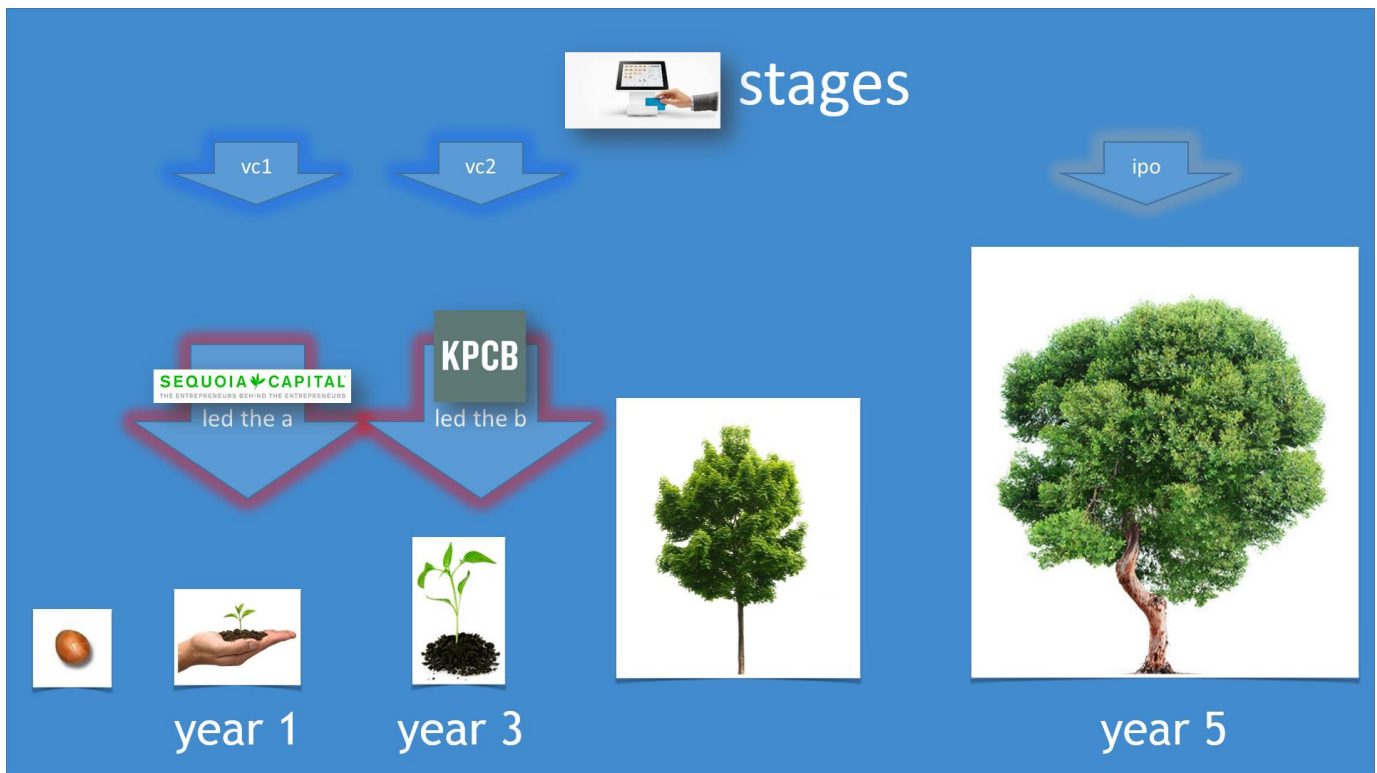
When Giancarlo did the A round with Sequoia he was so confident in his P.O.S. company that he made the terrible mistake of assuming that he would never need to raise money again until the IPO in 5 years. To make matters even worse, Giancarlo never consulted a lawyer when he registered his company! His fiancé Sue Yoo is a prominent lawyer and told him time and time again that he needed to lawyer up. Even his best friend Benjamin Dover who is also a lawyer warned him many times. Unfortunately Giancarlo will get diluted....and it's not any venture capital's fault. It is 100% Giancarlo's fault for not lawyering up.

[www.tiny.cc/chris53](http://www.tiny.cc/chris53)

Giancarlo got lucky as another amazing venture capital firm wants to invest. Sequoia led the A round and Kleiner Perkins will lead the B. How awesome is Kleiner's reputation? Legend has it that John Doer from Kleiner who led an early venture capital round in Amazon.com has never sold a share of AMZN and his return on investment is literally 55,000%!



will lead the series b  
or the second vc round



in year 3 we need another  
\$1mn

Ok so we are now in year 3 and Giancarlo needs to raise another \$1mn.

Giancarlo is a machine – he still expects to go public in year 5 at a \$10mn valuation!

we still expect to go public in  
year 5 at a \$10mn valuation

here comes the dilution...

damn lawyers!



Eesh – too bad Giancarlo didn't talk to Sue Yoo or Benjamin Dover. He is going to get diluted. I want to stress that it is his fault entirely.

kleiner expects a 25% return  
for the next 2 years.  
sequoia still expects a 50%  
annual return  
unfortunately the founder  
gets all of the dilution.

Sequoia is not going to get diluted and nor should they as they had a law firm do the paperwork on their end. It's ok because Giancarlo will still make a lot of money but unfortunately the only way he could get another investor to take a risk and invest was if he gave up more of his equity.

Later stage investments usually have lower return profiles as they are usually closer to going public. Kleiner expects to make 25% annually for the next 2 years (when the P.O.S. firm will go public). Kleiner will put in \$1mn and in 2 years expects to have \$1mn  
\*  $(1+25\%)^2 = \$1.5625\text{mn}$

kleiner's expected return:  
 $= \$1\text{mn} * (1.25)^2 = \$1.5625\text{m}$

kleiner's ownership:  
 $\$1.5625\text{m} / \$10\text{mn} = 15.625\%$

So Kleiner will do the deal with Giancarlo if their \$1mn buys them 15.625%. Giancarlo does the deal despite the dilution. He is so passionate about the P.O.S. market that the dilution doesn't bother him too much. He isn't in this for the money. He wants to put a dent in the P.O.S. market!

sequoia's ownership:  
remains at 75.94%

our ownership goes from  
 $100\% - 75.93\% = 24.07\%$   
to  
 $24.07\% - 15.625\% = 8.4\%$

Giancarlo's ownership was 24.07% and now that he has given 15.625% of his stake to Kleiner, he now owns 8.4% of the company.

how many shares now?

$$\begin{aligned} &2\text{mn} / 8.4\% \\ &= \\ &23.7\text{mn} \end{aligned}$$

share [new] history:

$$\begin{aligned} &\text{a round we issued:} \\ &23.7\text{mn} * 75.9\% \text{ to sequoia} \\ &= \\ &18\text{mn shares} \end{aligned}$$

He still wants to keep his 2mn shares....so there are now 23.7mn shares.

share history:

$$\begin{aligned} &\text{b round we issued:} \\ &23.7\text{mn} * 15.6\% \text{ to kleiner} \\ &= \\ &3.7\text{mn shares} \end{aligned}$$

it gets worse as we forgot about  
employee ownership via stock  
options.....

let's analyze the pie chart

before the dilution we owned  
24% in the a

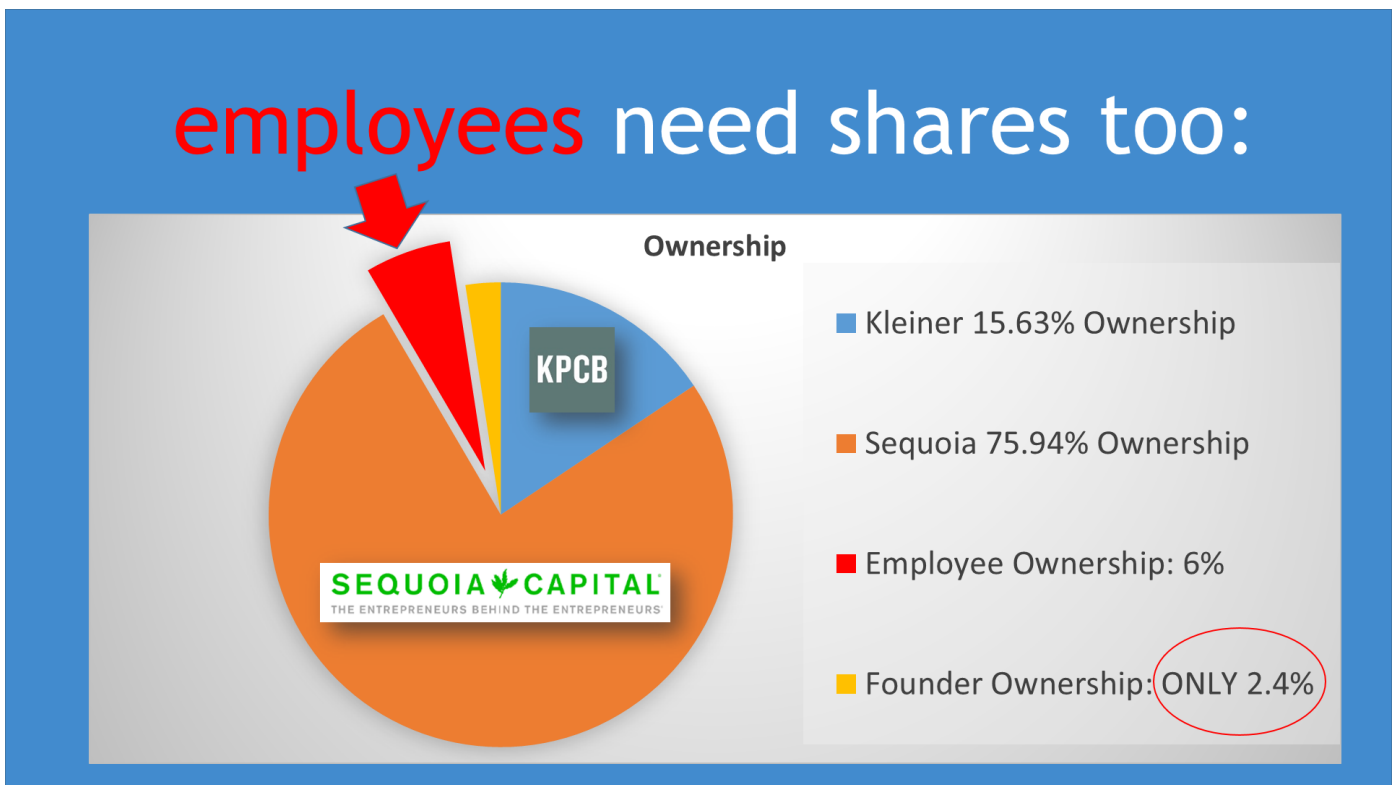
after the b we own 8.4%





My kids told me not to put this in the book. I presented to 2 Stanford MBA classes recently and only a few students in one of the classes politely laughed at this pie chart. Come on I thought this was a bit funny!

Ok hopefully you laughed a bit there! Back to our math...employees need to be incentivized to stay at Giancarlo's awesome P.O.S. firm!



Unfortunately Giancarlo never hired a lawyer and forgot to give them options.....

Well unfortunately Giancarlo will get diluted for a 3<sup>rd</sup> time now! He needs to give 6% of the firm to his employees to keep them hanging around. They are worried as the firm almost ran out of money. He is in good company as this has happened to many amazing firms, including Oracle in the early 90s! Ok now Giancarlo only has 2.4% ownership!

why do we issue stock options?  
cheaper than paying a salary  
motivates all to work as a team



vesting.

now that we only own 2.4375%  
of the company. how many shares  
are there?

$2,000,000 / 2.4375\% = 82\text{mn shares}$

options =  $82\text{mn} * 6\% = 4.92\text{m shares}$

oh man...we got diluted by  
90%!

outside (venture) investors are  
protected against dilution.

because they own  
'preferred shares'  
we get diluted as we own  
'common shares'

founders need to understand  
dilution before dealing with  
venture capital firms.

it's not all bad as founders can  
also get HUGE option grants and  
hit the ball out of the park  
(especially if the \$10mn IPO is a  
huge success)!

Giancarlo is now on top of the world again as his company went public at \$10mn and was a 10 bagger in the first year post IPO and a 10 bagger again in the next year and YES a 10 bagger again in the 3<sup>rd</sup> year! There is a reason Sequoia and Kleiner backed him! Giancarlo did such an amazing job that the board even granted him lots and lots of options. The firm is worth \$10bn and Giancarlo owns 10% of it! A happy ending as he knocked it out of the park! [www.tiny.cc/chris54](http://www.tiny.cc/chris54) CURTAIN CALL!!!!



why do a 'b' round?

if we were tracking to \$10mn  
in net income by year 5  
instead of \$1mn...  
and we wanted to accelerate  
growth...  
then we can raise \$x at a  
\$100mn series b round valuation

more vc return terminology



unicorns. \$1bn+ valuation.  
pr <0.07%

In VC, a unicorn is a VC backed company that has a private or public market valuation of at least \$1bn. The probability of this occurring is <0.07%. Most VC investments are black holes or firms that are walking dead.



black holes or walking dead.  
pr >0.07%



1 / 1538 is the odds of a VC  
backed investment becoming a  
unicorn.

in order to return just the capital  
on a \$400mn fund you need to  
own 20% of 2 unicorns.

that's how hard vc is!



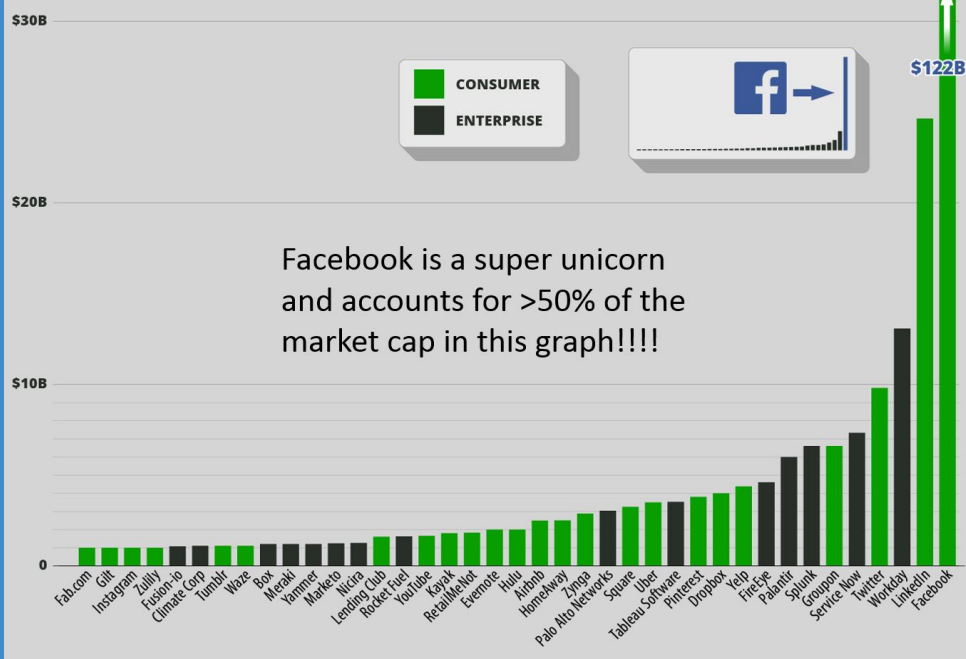
there are ~40 unicorns that  
have been born since 2003



that's ~4 every year.

there are only a few  
'super unicorns'  
(>\$100bn)....

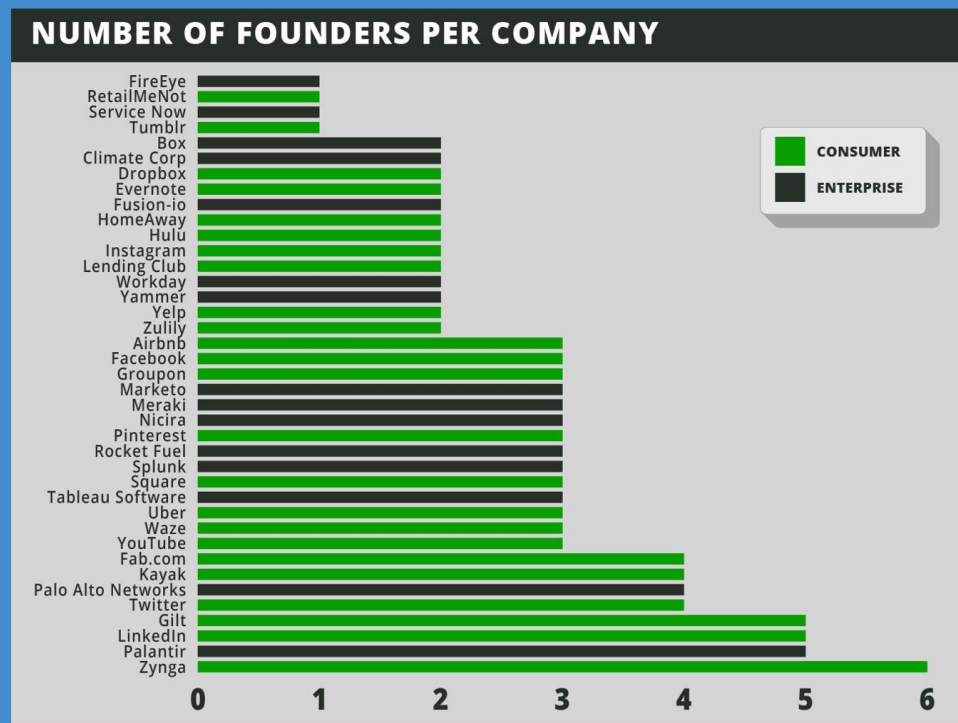
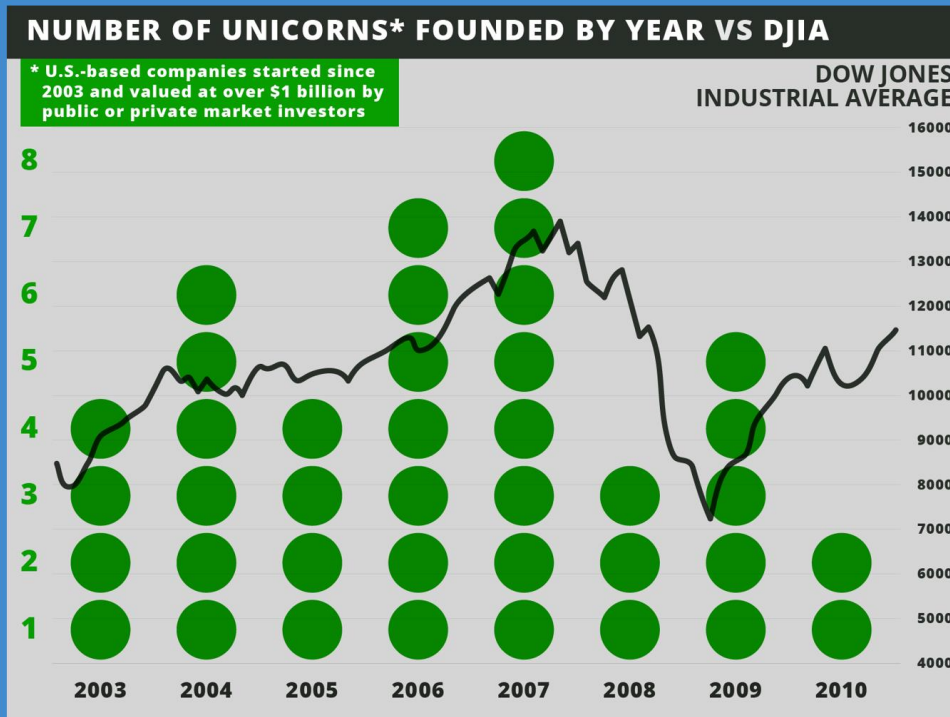
### THE \$1BN+ UNICORN CLUB: RECENT VALUATIONS



it takes 7 years on average  
from founding to IPO.

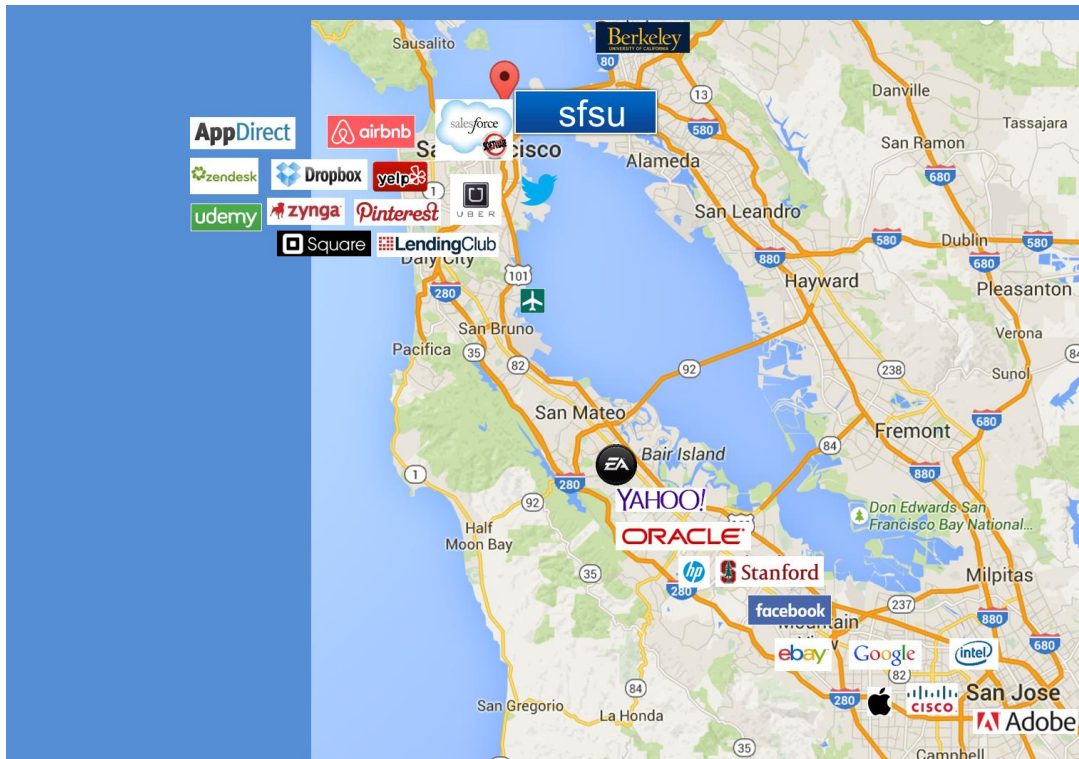
the average founder age is 34



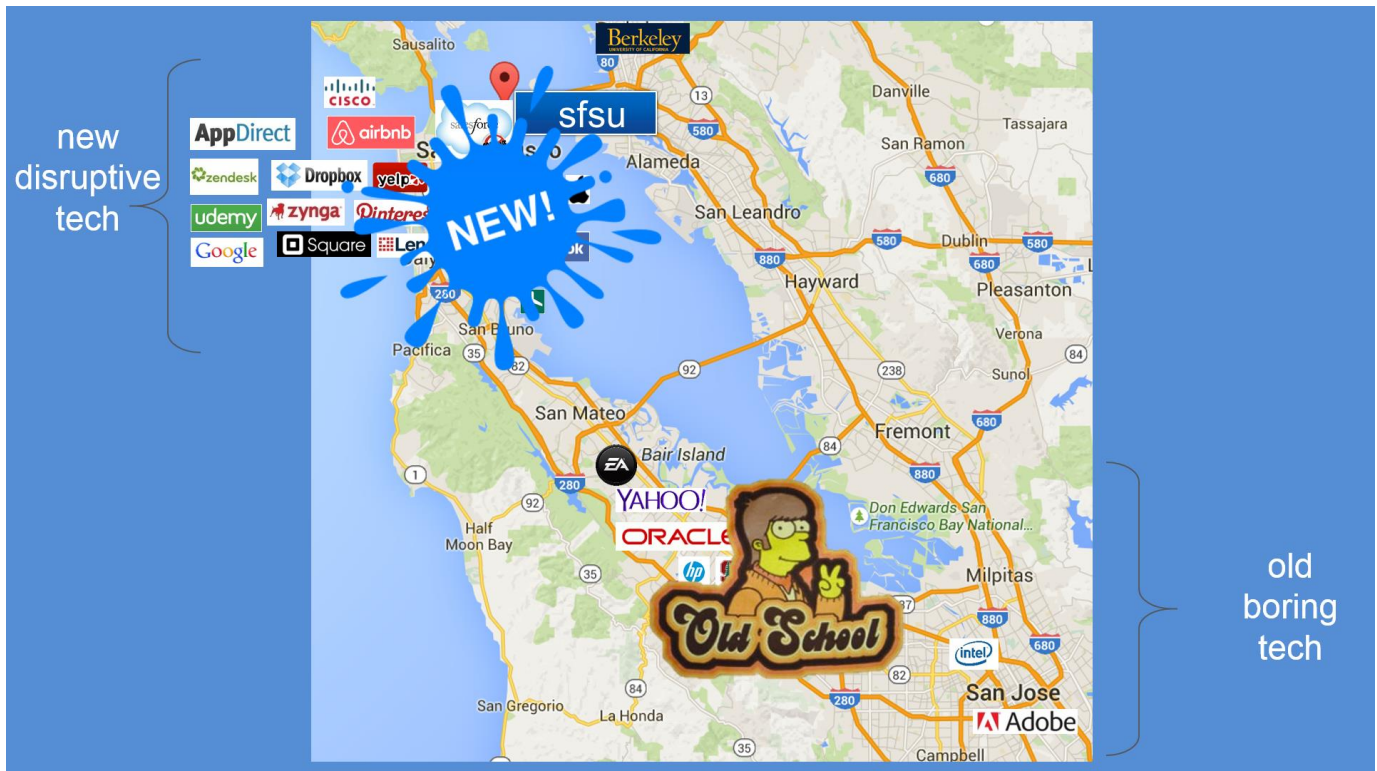


the odds are higher of getting struck by lightning than creating a \$1bn+ tech company.

SF and not the valley is the new home of the unicorn.



A lot of the cool new tech companies are being founded in San Francisco (north of the airport icon in the previous image) and not in the valley anymore (the valley is south of the airport icon).



The largest employer in San Francisco is now Salesforce.com. Salesforce Tower will be completed very soon and it will tower way way way above every SF building and create a beautiful new skyline in San Francisco: [www.tiny.cc/chris55](http://www.tiny.cc/chris55)

### Questions Based on Chapter 5:

1: It makes more sense to get a loan rather than an investment from a VC or angel investor when you start a company.

True or False

2: It makes sense to hire a lawyer only when dealing with banks.

True or False

3: Hiring a lawyer makes sense when dealing with investors so you protect yourself from getting too diluted.

True or False

## CHAPTER SUMMARY



**Chris Haroun** @chris\_haroun

we also discussed first round ('a') round valuation and dilution. b round. option pools. importance of contracts. vc sector return metrics. Unicorns.

